

What is claimed is:

1. A wire electric discharge machine for machining a workpiece by electric discharge between the workpiece and a wire electrode arranged between upper and lower wire guides, comprising:

storage means storing a straightness-error corrective amount to prevent a straightness error of a wire electrode caused by consumption of the wire electrode due to the electric discharge; and

motion path determination means to obtain a first correction amount for a motion path of the wire electrode on a first plane parallel to the workpiece in an offset direction of the wire electrode and a second correction amount for a motion path of the wire electrode on a second plane parallel to the workpiece in the offset direction, based on the straightness-error corrective amount stored in said storage means, and to correct the motion path on the first plane by a first corrected offset amount obtained based on the first correction amount and a predetermined offset amount depending on a wire radius and an electric discharging gap, and to correct the motion path on the second plane by a second corrected offset amount obtained based on the second correction amount and the predetermined offset amount, to thereby determine motion paths of the upper and lower wire guides relative to the workpiece.

2. A wire electric discharge machine according to claim 1, wherein said motion path determination means obtains the first corrected offset amount on the first plane and the second corrected offset amount on the second plane different with each other, to thereby make different corrections to the motion paths on the first and second planes.

3. A wire electric discharge machine according to claim 1, wherein the straightness-error corrective amount is given by a value of an angle.

4. A wire electric discharge machine according to claim 1, wherein the

straightness-error corrective amount is given by a tangent of an angle.

5. A wire electric discharge machine according to claim 1, wherein said storage means comprises a database provided in a controller of the wire electric discharge machine for storing a plurality of straightness-error corrective amounts for different kinds of wire electrodes and machining conditions, and the straightness-error corrective amount is selected from the plurality of straightness-error corrective amounts stored in the database in accordance with a kind of the wire electrode and a machining condition designated for the wire electric machining in the controller.

6. A wire electric discharge machine for machining a workpiece by electric discharge between the workpiece and a wire electrode arranged between upper and lower wire guides, comprising:

storage means storing a straightness-error corrective amount to prevent a straightness error of a wire electrode caused by consumption of the wire electrode due to the electric discharge; and

motion path determination means to obtain a first correction amount for a motion path of the wire electrode on a first plane parallel to the workpiece in an offset direction of the wire electrode and a second correction amount for a motion path of the wire electrode on a second plane parallel to the workpiece in the offset direction, based on the straightness-error corrective amount stored in said storage means, and to correct the motion path on the first plane by a first corrected offset amount obtained based on the first correction amount and a predetermined offset amount depending on a wire radius and an electric discharging gap, and to correct the motion path on the second plane by a second corrected offset amount obtained based on the second correction amount, the predetermined offset amount and a predetermined taper offset amount for taper machining, to thereby determine motion paths of the upper and lower wire guides relative to the workpiece in the taper machining.

7. A wire electric discharge machine according to claim 6, wherein said motion path determination means obtains the first corrected offset amount on the first plane and the second corrected offset amount on the second plane different with each other, to thereby make different corrections to the motion paths on the first and second planes.

8. A wire electric discharge machine according to claim 6, wherein the straightness-error corrective amount is given by a value of an angle.

9. A wire electric discharge machine according to claim 6, wherein the straightness-error corrective amount is given by a tangent of an angle.

10. A wire electric discharge machine according to claim 6, wherein said storage means comprises a database provided in a controller of the wire electric discharge machine for storing a plurality of straightness-error corrective amounts for different kinds of wire electrodes and machining conditions, and the straightness-error corrective amount is selected from the plurality of straightness-error corrective amounts stored in the database in accordance with a kind of the wire electrode and a machining condition designated for the wire electric machining in the controller.